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KICKAPOO ENVIRONMENTAL OFFICE

The Green Clan

Link Between Breast Cancer and Atrazine?

Tara Hammer, KUMC, Masters in Public Health

Crystal Wabnum, Grants Manager/Community Coordinator 785-486-2601 x8

During the spring and summer, Tara Hammer, a public health graduate student at KUMC and a Cherokee Nation tribal citizen, developed a partnership with the Kickapoo Tribe to study atrazine and its potential link to breast cancer incidences within our tribal membership. Atrazine is one of the most widely used chemicals used to control weeds in corn, sorghum, and sugar cane, among other crops in the United States. However, its use is banned in the European Union.

Tara was interested in conducting her studies with the Kickapoo Tribe because of the perception of the Kickapoo reservation being home to a "cancer cluster," a community where there is a higher than normal number of cancer cases. The Tribe doesn't have reliable data on the incidences of breast cancer on the reservation because the different ways that data has been tracked over the years. Common risk factors of breast cancer include: weight and physical inactivity, alcohol use, hormone replacement therapy, family history, genetics, age, gender, as well as environmental factors such as air and water quality. Maintaining a healthy lifestyle helps lower your risk.

Miss Hammer conducted water sampling at 8 different places on the rez. She collected samples at 4 different times of the growing season.

The results showed that levels were slightly above the United States Environmental Protection Agency (EPA) standards for drinking water during one sampling date, the other three samples remained well under limits. This alone isn't enough to show a correlation between breast cancer incidences and atrazine in the water, but it does help build the case to dig even deeper into the issue with more research. In terms of the average concentrations found in the samples collected the water is of adequate drinking quality, according to the EPA's standards.

During the summer of 2012, the Kickapoo Tribe signed on as one of many plaintiffs in a class action lawsuit initiated by the City of Greenville targeting Syngenta, the corporation that manufactures atrazine. The lawsuit claimed that atrazine at any level injures the water supplies in community water systems. Water tests showed a measurable concentration of atrazine present in the plaintiffs' water systems. In October of 2012, the Court and both sides, agreed on a monetary settlement. In a settlement, both sides avoid the heavy expenses of more litigation, and the defendant, in this case, Syngenta, avoids any admission of guilt. The Tribe won $39,000 in the settlement, all of which has been directed to fund the Water Plant. To learn more about the settlement, please visit Atrazinesettlement.com.

On August 26th, 2013, the Center for Biological Diversity and a coalition of 250 organizations across the US submitted a letter to the EPA urging the agency to ban the use of atrazine due to "widespread exposure and unreasonable risks to human health and the environment."

The Green Clan

Welcome to Deer Hunting Season

By Matt Bosworth, Wetlands Coordinator, 486-2601 x5

As summer winds down, I think of the upcoming fall hunting season. Deer season is a favorite among many hunters in these parts. Venison is fantastic in the hands of a good cook. And, who doesn't like a big set of antlers hanging on the wall? In the spirit of deer hunting, I've put together information on deer that may help make this year's season even more successful than last.

Vision

Contrary to what I have been told, deer have color vision. However, their eyes can only distinguish blues and yellows (don't wear blue or yellow when hunting). While they don't distinguish reds and oranges very well, they CAN still see them, it just isn't perceived as color. Also, deer have the ability to see ultra-violet (UV) light. The bad news is that it hasn't been determined how they perceive UV, so be aware that some detergents contain ingredients that can increase UV reflectance.

On the left is an unwashed camouflaged shirt and on the right is the same shirt after being washed. The worst part is that the deer's UV vision is most active under low light conditions, so you can imagine the shirt on the right might as well have a flashing warning light on it.

Smell

Deer have about 297 million smell receptors while humans have only 5 million. This means that even if they can't see you they can still smell you. Remarkably, a bloodhound has less smell receptors than a deer! Deer's ability to smell is so good, they are able to smell the path you choose to use in walking to your hunting stand even hours after you've been there. Do your best not to walk directly on trails and play the wind.

Hearing

Studies have shown that deer have similar hearing ability as that of humans. Since deer don't typically hear human sounds on a regular basis (metal on metal clanking, coughing), they recognize them as a sign of danger more easily.

White tails are absolutely amazing animals with extraordinary senses. Their ability to sense us without so much as a flicker of movement or breathe of wind makes them difficult to pursue successfully, but that's what makes hunting them so exciting. Good luck out there!

The Green Clan

Small Ways to Reduce Air Pollution

By Scott Weir, Air Quality Coordinator, 486-2601 x2

Air pollution is an ongoing problem that often seems overwhelming. For every step we take to regulate and reduce emissions of air contaminants in our nation, a new coal-fired power plant or unregulated industrial plant starts up in another part of the world. Rather than give in to such discouraging thoughts or give up the fight for cleaner air, we should remember that there are things each of us can do that make a difference.

Americans use 384 billion gallons of oil per day for transportation (U.S. Energy Information Administration, 2010). Every gallon of gasoline burned produces 19 pounds of carbon dioxide, so this results in the production of 7.3 trillion pounds of carbon dioxide each day. You can reduce these automobile emissions by changing the habits that contribute to them. Drive your car or truck only when it is necessary. Walk or bicycle whenever possible. Combine a number of short trips into a single longer trip. Offer your neighbor a ride into town when you have to go.

Trash in landfills produces methane and other harmful gases, including some that contribute to the formation of ozone and smog. Adopting habits like recycling and composting to reduce the amount of trash you produce will actually reduce landfill emissions of such pollutants.

Coal burning power plants emit greenhouse gases, traces of mercury, and fine particulate matter that contribute to air pollution. Your personal energy consumption in the home can be reduced significantly by using energy efficient appliances and light bulbs, turning off unused lights and electronics, reducing your home's heating on cold days and limiting your use of air conditioning to very hot days.

Synthetic fabrics rely on fossil fuels for their manufacturing, and that contributes to air pollution. Organic cotton is a better solution than non-organic cotton because the chemicals used on cotton to control weeds and pests gets into the air and causes health problems. Many fabric dyes also pollute the air we breathe; if available, buy fabric dyed with organic substances that have a lower impact on the environment and the air you breathe. Even the finishes put on fabrics to make them fire resistant, wrinkle-free, and stain resistant contribute to air pollution.

The furniture, carpets and other flooring choices, and wall surfaces we tend to use today pollute the air, often worse than burning fossil fuels. Many paints and wood finishes contain high levels of volatile organic compounds (VOCs). The use of newer low VOC paints and finishes will minimize emissions.

The thing about air pollution solutions is that corporations and governments can make huge impacts for the better or for the worse that individuals alone cannot. However, individuals or small groups of people can change their approach to life and the choices they make. From hairspray to spray paint to driving your car, everything has an impact on the environment and the air we breathe. That is why it is so important that everyone do his or her part, no matter how small. In this way, we can make an impact on the world in which we live.

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Working Together for a Better Community!

2013 Clean Garden Contest Winners!

50+ Age Group
1st Place—Janet Negonsott
2nd Place—Tina Wahwahsuck
3rd Place—John Thomas

12 to 49 Age Group
1st Place—Tammy Wahwasuck

Judges: Mike Shopteese, Shickto Negonsott and Crystal Wabnum

Janet Negonsott's prize-winning garden

Rabbit beans from Tammy Wahwasuck's garden